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## Amendments to the Claims

1. (Original) An apparatus for directing a gas from an upstream conduit through a vessel wall for cleaning surfaces within the vessel comprising:  
a mounting flange for coupling the apparatus to the upstream conduit delivering the gas and having:  
first and second faces;  
an inboard surface bounding a central aperture;  
an outboard perimeter; and  
an array of bolt holes between the first and second faces;  
a conduit extending downstream from the flange and having:  
inner and outer walls along at least a portion of a length; and  
a space between the inner and outer walls for carrying a cooling fluid;  
a cooling fluid inlet; and  
a cooling fluid outlet.
2. (Original) The apparatus of claim 1 wherein:  
the space extends from an upstream end outside the vessel wall at least partially downstream within the wall.
3. (Original) The apparatus of claim 1 wherein:  
the cooling fluid outlet is along the conduit; and  
the cooling fluid inlet is along the flange.
4. (Original) The apparatus of claim 3 wherein:  
the inner and outer walls each have a downstream rim; and  
the cooling fluid outlet is between the inner and outer walls.
5. (Original) The apparatus of claim 1 wherein:  
the inner wall is essentially formed by a first tubular piece extending from an upstream

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rim to a downstream rim and having interior and exterior surfaces, along an upstream portion, the interior surface providing the flange inboard surface.

6. (Original) The apparatus of claim 1 in combination with:  
said vessel, being a furnace, having a furnace wall separating a furnace exterior from a furnace interior and having a wall aperture; and  
a detonative source of said gas.
7. (Original) The combination of claim 6 wherein:  
the flange is upstream of an exterior surface of the furnace wall; and  
the conduit extends through the furnace wall to protrude downstream of an interior surface of the furnace wall.
8. (Original) A soot blower nozzle comprising:  
means for mounting the nozzle to an upstream soot blower gas conduit;  
a surface for guiding gas from the soot blower gas conduit into the interior of the vessel;  
and  
means for cooling the nozzle.
9. (Original) A method for operating an apparatus for cleaning interior surfaces within a vessel having a vessel wall, the method comprising:  
causing a combustion pulse in a combustion conduit;  
directing combustion gases along the combustion conduit through the vessel wall to be ejected from an outlet of the combustion conduit; and  
passing a cooling gas along a portion of the combustion conduit exposed to heat from the vessel.
10. (Original) The method of claim 9 wherein:  
said passing is essentially continuous between a plurality of said combustion pulses.

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11. (Original) The method of claim 9 wherein:  
said passing comprises passing the cooling fluid along a path at least partially surrounding a portion of a combustion gas flowpath.
12. (Original) The method of claim 9 wherein:  
said passing comprises passing the cooling fluid along a path into the vessel interior.
13. (New) The method of claim 9 wherein:  
the passing is along an open flowpath discharging into the vessel interior.
14. (New) The method of claim 9 wherein:  
the passing comprises passing downstream between inner and outer walls of the combustion conduit.
15. (New) The method of claim 14 wherein:  
the passing is along an open flowpath discharging into the vessel interior.
16. (New) The combination of claim 7 wherein:  
the cooling fluid outlet is open to the vessel interior.
17. (New) The combination of claim 7 wherein:  
the cooling fluid outlet is between the inner and outer walls.
18. (New) The combination of claim 7 wherein:  
the cooling fluid is a cooling gas.